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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/090,938	03/05/2002	Young C. Yoon	7217/66563	6402

7590 04/18/2003
COOPER & DUNHAM LLP
1185 Avenue of the Americas
New York, NY 10036

EXAMINER

NGUYEN, HIEP

ART UNIT	PAPER NUMBER
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2816

DATE MAILED: 04/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicant(s)

10/090,938

Applicant(s)

YOON ET AL.

Examiner

Hiep Nguyen

Art Unit

2816

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 March 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Correction and/or clarification is required.

Regarding claim 1, the recitation “A communication device for communicating with a plurality of communication terminals” is indefinite because it is misdescriptive. Figure 2 of the present application shows that the “communication device” communicates with only one “communication terminal”. The recitation “a received signal **corresponding** to signals transmitted from a plurality of communication terminals” on lines 4-6 is indefinite because it is not clear how “a received signal” can be “**corresponding** to signals transmitted from a plurality of communication terminals”. The recitation “means of UWB (Ultra WideBand) communication and pulses at possible positions in a signal transmitted from each communication terminal” on lines 6-8 is indefinite because it is misdescriptive; the “UWB (Ultra WideBand) communication” is not a device or a means. The Applicant is requested to explain how a “UWB communication” can calculate the correlation and to explain what the “at possible positions in a signal transmitted from each communication terminal” is. The same analysis is true for these recitations in claims 9-11. Claim 1 is also indefinite because none of the drawings of the present application shows a communication device comprising: correlation calculation means and demodulation means.

Claims 2-8 are indefinite because of the technical deficiencies of claim 1.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for

patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 4-6 and 9-11 are rejected under 35 U.S.C 102(e) as being anticipated by Grabb et al. (US Pat. 6,437,832).

Regarding claim 1, figure 1 of Grabb shows a communication device for communicating with a plurality of communication terminals (every communication device has a plurality of communication terminals), comprising: correlation calculation means (108) for calculating the correlation between a received signal corresponding to signals transmitted from a plurality of communication terminals by “means of UWB (Ultra WideBand) communication and pulses at possible positions in a signal transmitted from each communication terminal”; and demodulation means (109, 110, 111, 112, 125) for demodulating data transmitted from the respective communication terminals on the basis of the correlation, taking into account interference among the signals transmitted from the communication terminals. Note that element (110) adjusts the interference caused by locally generated overlay signal.

Regarding claims 4- 6, figure 1 and column 5 show that the demodulation means (109, 110, 111, 112, 125) demodulates data by detecting an optimum symbol (sub optimum) or an optimum symbol sequence on the basis of the correlation, taking into account interference among the signals transmitted from the plurality of communication terminals.

Claims 9-11 are rejected under 35 U.S.C 102(e) as being anticipated by Grabb et al. because they are method claims of the circuit of claim 1.

Claims 1 and 9-11 are rejected under 35 U.S.C 102(e) as being anticipated by Evans et al. (US Pat. 6,497,656).

Regarding claim 1, figure 2 of Evans shows a communication device for communicating with a plurality of communication terminals (every communication device has a plurality of communication terminals), comprising: correlation calculation means (1728, 1746, 1750, 1734, 1732) for calculating the correlation between a received signal corresponding to signals transmitted from a plurality of communication terminals by “means of UWB (Ultra WideBand)

communication and pulses at possible positions in a signal transmitted from each communication terminal"; and demodulation means (1742) for demodulating data transmitted from the respective communication terminals on the basis of the correlation, taking into account interference among the signals transmitted from the communication terminals

Claims 9-11 are rejected under 35 U.S.C 102(e) as being anticipated by Evans et al. because they are method claims of the circuit of claim 1.

Allowable Subject Matter

Claims 2, 3, 7 and 8 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Hiep Nguyen whose telephone number is (703) 305-0127. The examiner can normally be reached on Monday to Friday from 7:30 A.M. to 4:00 P.M.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Callahan, can be reached on (703) 308-4876. The fax phone number for this Group is (703) 746-5716.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

Hiep Nguyen

Examiner

04-16-03



TUAN T. LAM
PRIMARY EXAMINER